(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau

l.





(43) International Publication Date 4 August 2005 (04.08.2005)

PCT

(10) International Publication Number WO 2005/071133 A2

(51) International Patent Classification⁷:

C23C 14/24

(21) International Application Number:

PCI/JP2005/001174

(22) International Filing Date: 21 January 2005 (21.01,2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2004-014341

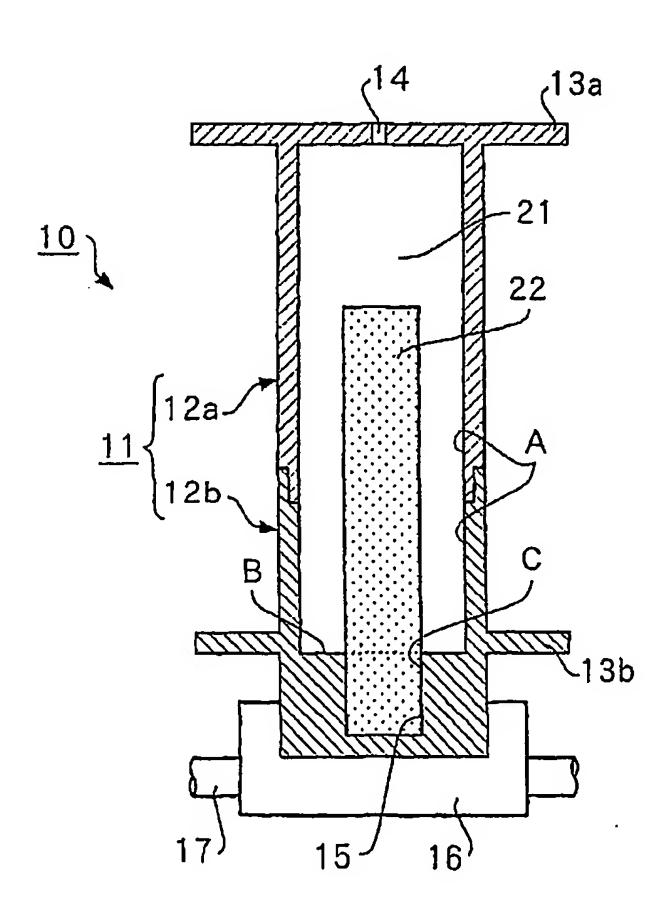
22 January 2004 (22.01.2004) JP

(71) Applicants (for all designated States except US): ION-IZED CLUSTER BEAM TECHNOLOGY CO., LTD. [JP/JP]; Komuro Daisan Bldg., 41, 1-6, Kitaurawa 4-chome. Urawa-ku. Saitama-shi, Saitama 3300074 (JP). FUTABA CORPORATION [JP/JP]; 629 Oshiba, Mobara-shi, Chiba 2970033 (JP).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): TAKAGI, Toshinori [JP/JP]; 10-13, Tomooka 2-chome, Nagaokakyo-shi, Kyoto 6170843 (JP). NAKAMURA, Hiroki [JP/JP]; 2-1-203. Yamate 2-chome, I'unabashi-shi, Chiba 2730045 (JP). WATANABE, Hiroshi [JP/JP]; 336. Rokujizou, Nagara-machi, Chosei-gun, Chiba 2970233 (JP). FUKUDA, Tatsuo [JP/JP]; c/o Futaba Corporation. 629, Oshiba, Mohara-shi, Chiba 2970033 (JP).
- (74) Agent: KAWASAKI, Takao; Toranomon Toso Bldg., 8F, Toranomon 1-chome, Minato-ku. Tokyo 1050001 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FL, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG.

[Continued on next page]

(54) Title: VACUUM DEPOSITION METHOD AND SEALED-TYPE EVAPORATION SOURCE APPARATUS FOR VACUUM DEPOSITION



(57) Abstract: A vacuum deposition method is provided. In the vacuum deposition for evaporating a sublimation evaporation material, the gas scaled-type heating container 11 has the blast aperture 14 and an area for evaporating the evaporation material by the radiation heat from the inner surface thereof. The holder 15 holds an evaporation material in a region in which the evaporation material does not evaluate due to the heat transferred from the heating container 11. Thus, the generated vapor is emitted from the blast aperture 14 into the deposition subject surface outside the container.

WO 2005/071133

WO 2005/071133 A2

PH. PL. PT. RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW. GII, GM, KE, LS, MW. MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW). Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CII, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

SE, SL SK, TR), OAPI (BE, BJ, CF, CG, CL CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.